July 1976

Soil Conservation

U.S. Department of Agriculture

Mainstay of Agriculture . . . and Conservation

From the Administrator

"I am happy to report," said Secretary of Agriculture Earl L. Butz in a recent editorial, "that family farming in the United States is holding its own as the most permanent and dominant influence in American agriculture."

He reported that about 95 percent of all U.S. farms are still family farms and produce about 60 percent of all farm products sold. As for incorporated farms, the Secretary noted that more than 90 percent of these are closely held family corporations, rather than large agribusiness firms.

"Family farms," he concluded, "continue to be a mainstay of American agriculture."

The ability of the family farm to survive is good news for conservation, because the family farmer is also the mainstay of soil and water conservation.

In the early days of SCS, it was family farmers who offered their farms as demonstration sites for soil conservation practices.

It was family farmers who organized the first conservation districts. Today family farmers and ranchers still make up 71 percent of the conservation district supervisors in the United States.

It is family farmers who have developed and supported soil stewardship observances in their local churches.

Almost always, it is a family farmer—frequently encouraged by his sons and daughters—who tries out a new agricultural practice. In county after county, it is the family farmer who is the first to put in parallel terraces with tile outlet drainage; who first experiments with no-till farming and invites his neighbors over for a look.

It is the family farmer or rancher who decides to install conservation measures on his land—even when he isn't convinced that he will get his investment back in higher net profits next year. That is because a family farm is more than a factory for producing income; it is also a home; a source of personal pride; a legacy for one's children.

As we mark the 200th anniversary of our country's birth in freedom this month, we should remember that it was the yeoman farmer, the family farmer, who "fired the shot heard around the world" and eventually won our independence.

In the years that followed, it was the family farmer who loaded his wagon and moved west to settle a nation.

Now it is the family farmer—and rancher—who keeps alive our voluntary program of soil and water conservation . . . who conserves and improves our basic resources .

The Soil Conservation Service salutes farm families in this Bicentennial Year and prays that they will continue to be the mainstay of American agriculture and of conservation for the next 200 years.

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Soil Conservation

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Earl L. Butz
Secretary of Agriculture

R. M. Davis, Administrator
Soil Conservation Service

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Cover:
Contour strips provide erosion control on a dairy farm in the Northern Panhandle Soil Conservation District in West Virginia.

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Spotlight on a Youth Conservation Commission

by Anne Zack

Puppets are among the spokesmen "employed" by seven high school students spreading the conservation message in South Carolina.

They're just a sample of the work done by the Lee County District Youth Conservation Commission, said Ronnie Feaster, SCS district conservationist for Lee County, east of Columbia.

The students developed a puppet show especially for the Goodyear Awards judges when they visited the county last spring. Now they present it to local schools and clubs.

The youth commissioners wrote the script, made most of the puppets, built the stages, and painted the backdrops.

"We just give them an idea," Feaster said. "They use their imagination and come up with something fresh every time. And they do it all themselves."

The Lee County Soil and Water Conservation District Board organized the youth conservation commission in July 1975 to help young people understand the importance of conserving natural resources. A district committee selected the commissioners from students recommended by county high school principals and counselors.

The district has sent the youth commissioners to study resource conservation at a 1-week summer workshop at Clemson University. The workshop, sponsored by the South Carolina Association of Conservation Districts and the South Carolina Land Resources Conservation Commission, gives young people classroom and field experience in practical conservation. The district board plans to send all future youth commissioners to the workshop as well.

At their organizational meeting last summer, the youth commissioners outlined their plans for the coming year. Their goal was to inform county residents of conservation district programs and conservation in general. In less than a year, they began turning out all sorts of finished projects.

"Their programs are so good," said Feaster, "that most clubs ask them to come back again."

A favorite one is writing and taping conservation messages for radio station WAGS in Bishopville, the county seat. Each month the youth commissioners produce six or seven spot announcements or one longer program geared to the season or to current developments in conservation.

The youth commissioners also write a short feature for the local newspaper each month.

"Many civic and garden clubs in the community have invited the youth commissioners to present conservation programs," said Wiley Alexander, vice chairman of the group. "Sometimes we just give talks. Other times we put on a play, the puppet show, or a slide show. For one program, we even wrote a poem."

Although most of the slide shows the youth commissioners use are ordered from SCS, they did put together one of their own. To mark the Bicentennial, the youth commissioners gathered slides and wrote a script about the history of farming and conservation in Lee County.

"Their programs are so good," said Feaster, "that most clubs ask them to come back again."

The task of writing the monthly articles and radio spots is passed from person to person. Writing for special projects, such as the puppet show and club programs, is a group effort.

"We think seven is a good number for a youth board," commissioner Cindy McDowell said. "There are enough of us to get things done. We meet on the third Thursday of each month, and between meetings at least three or four of us can always get together at each other's house to work on projects."

The youth commissioners work with all the schools in the county on conservation programs and outdoor classrooms. At one school, they helped elementary teachers with an Arbor Day program, planting a maple tree and setting up a bird feeder and a bluebird box.

They also helped fifth and sixth graders plant a pine windbreak alongside the school and explained to the students how grass and windbreaks help control erosion.

The youth commissioners have stirred up so much interest in conservation through their activities in the schools that there is a waiting list of students who want to serve on the commission.

"They do other things, too," said Frank Lake, SCS soil conservationist and adviser to the youth commissioners. "They help the district with essay and speaking contests and with Environmental Stewardship Month. They help with just about all the district's activities."

District Conservationist Feaster believes that the possibilities for using a youth board are limitless. "Although we still carry out our own information program in the district office,"

Wade Atkinson, Wiley Alexander, and Cindy McDowell lend technical support as Debbie Davis tapes a conservation message at radio station WAGS.

The youth commissioners set up a bird feeder on Arbor Day.

he said, "they can do a lot of things we don't have time to do. And they get new ideas for helping us out all the time."

As the youth commissioners get new ideas, they fit them into their annual plan and go to work. One of their latest ideas is to use a cassette recorder to tape interviews with farmers, equipment dealers, and others in the county on how conservation affects them. They plan to use the recordings in their radio programs.

The district board liked that particular idea so much that it agreed to purchase a recorder for the project.

Feaster said such interviews would do more than supply material for the radio programs. He thinks the youth commissioners will spot areas of interest, or problems that the district may have overlooked. They can bring these to the district's attention.

And last May, the youth commissioners were featured guests on a talk show, "Carolina Today," produced at station WIS in Columbia.

What did they talk about? "Conservation!" ♦

Ms. Zack is a writer with the Information Division, SCS, Washington, D.C.

A Real Bargain

This "ad" appeared in North Carolina newspapers 20 years ago to "sell" conservation to local farmers. SCSer Ray Bryant, now district conservationist in Bakersville, North Carolina, worked on it with conservation district officials. "I remember visiting a farmer for the first time shortly after it came out," he recalls. "He had it framed and on his wall. We got to talking about it, and he not only became a district supervisor, but one of the most aggressive conservationists I've known."

For Sale

One Avery County Farm

TOP HALF WASHED TO GULF OF MEXICO—
MINERALS GONE WITH TOP SOIL

All Fields Suitable To Wash.

37 Gullies, 1 foot to 4 feet deep (due to grow larger)

1 Empty House, doors and windows missing, lean-to 2 rooms and a path.

1 Leaning Barn, to be moved on account of lack of storage for manure.

2 Stacks of Mixed Grasses, Mostly Broomsedge.

3 Stacks of Briars and Assorted Weeds.

4 Mineral Deficient Cows. They are gentle, used to getting poor in the winter. Guaranteed to have rickets and no calves.
1-quarter mile of fence with plenty of baling wire for repairs.

1 Sow and 2 Pigs; would eat anything.

17 Chickens, used to roosting in trees, rooster too weak to crow.

43 Acres of Overcut Timber, been burned recently—no known Wild Game.

Other articles too worthless to mention.

Reason for Selling: Owner going to work for a CONSERVATION FARMER who has taken care of his soil.

Will your farm ever be in the same condition as the one described above? Would you like to do something to stop this destructive waste of our most precious natural resource . . . our soil

Join Hands With Your
AVERY COUNTY SOIL CONSERVATION DISTRICT
CONSERVATION DOES NOT COST . . . IT PAYS!

CBers Band Together on Flood Warning Network

by Lowell Edminster and Frederick Bubb

CBers in Monroe County, Pennsylvania, are "tuned in" to a flood warning network.

The Citizens Band radio is a vital link in the flood warning system in this rural community in the heart of the Pocono Mountains. More than 20 volunteer CBers, all members of the Monroe County Civil Defense, report on upstream water levels during emergencies.

"Volunteer fire companies keep the civil defense headquarters informed of water levels in the various towns in the county through a VHF-low band public service radio network," said Joel Keller, director of the county civil defense. "The CB operators supplement this with information from farther upstream so we can warn towns of predicted flood levels.

"This is a small county, but we have to be prepared to handle a lot of people during emergencies because we're a popular vacation area," said Keller. "We rely on volunteers."

About 20 years ago, 78 people drowned in the county on the lower Brodhead Creek as a result of flooding from Hurricane Diane.

The Soil Conservation Service determined that flood damages did not justify a PL-566 floodwater retarding structure and suggested residents develop a flood warning system as an alternative.

Such a system was developed in 1972 after flooding from Hurricane Agnes convinced residents that something had to be done.

Since that time, the CB operators have assisted civil defense during six flood emergencies, including one that was locally more damaging than Hurricane Agnes.

"It's hard to put a dollar figure on the value of an early warning system," said Ace Raymond, assistant operations director for the county civil defense. "It allows people and property to be evacuated.

"But we are proud of the fact that not one life has been lost since the flood warning system was established." ♦

Mr. Edminster is SCS district conservationist in Stroudsburg, Pennsylvania.

Mr. Bubb is SCS public information officer in Harrisburg, Pennsylvania.

by F. Dwain Phillips

Land Judging Contest Draws 1,000 Competitors

Nearly 1,000 contestants competed in the 25th Annual International Land, Pasture, and Range Contest in Oklahoma City, Oklahoma, on May 5-6. Thirty-three states sent representatives, including—for the first time—Hawaii.

Hawaiian contestant Joyce Uyeda estimates slope of the land while (below) a Future Farmers of America contestant checks a subsoil sample.

The contest is sponsored each year by WKY radio and KTVY television in Oklahoma City and more than 35 other organizations. The Soil Conservation Service helped set up and judge the contest.

Vinson Bogard, SCS soil scientist in Pauls Valley, Oklahoma, has helped with the contest for 19 years. "It's a lot of work," stated Bogard, "but I think it's one of the best educational processes USDA has been involved in to teach young people about conservation."

Bobby Birdwell, SCS state soil scientist for Oklahoma and official judge for the contest, said: "I have been involved in county, area, and state contests for years, but helping with the International really made me realize how many young people study our soils. I know that with this much interest, we'll always have people raising our food and taking care of our land."

The contest was divided into three categories: Adults, Future Farmers of America, and 4-H. Each team was composed of four contestants.

They judged soil texture, depth, slope, permeability, degree of erosion, and surface runoff. They then determined management practices needed on the designated areas. Plant identification was also part of the contest.

The first day was spent in orientation and going through a practice contest to give out-of-state contestants a chance to look at Oklahoma soils.

Included in this year's contest was homesite evaluation, which provided participants a chance to recognize the hazards of some soils when houses are built on them. Features evaluated were: permeability, texture, slope, erosion, surface runoff, shrink-swell potential, water table, and flood plain. A rating of severe, moderate, or slight was given to reflect suitability of various soils for foundations, landscaping, gardens, septic systems, and sewage lagoons.

The event ended with a banquet at which winners received more than $2,000 in cash and awards. ♦

Mr. Phillips is SCS public information officer in Stillwater, Oklahoma.

"What's your name?" is what this contestant seems to be asking as he tries to identify a plant in the range contest. Below, competitors go through a station on land judging.

"You Can't Lose"

A Colorado soil conservation district has initiated a contest to encourage farmers to take better care of windbreaks.

To participate, farmers must plant at least 200 trees at the beginning of the year-long contest and then maintain them.

During the year, each windbreak entry is judged twice by board members of the Yuma County Soil Conservation District (SCD) in northeastern Colorado.

How well the windbreak has been managed determines the score. A farmer can receive up to 40 points for cleanliness between rows, 30 points for cultivation quality and timeliness, and 20 points for minimum tree damage. Other factors, such as land topography and cultivation difficulty, account for another 10 points. A farmer can also receive extra points for windbreaks containing more than 600 trees.

"The contest is to provide area farmers incentives to better care for windbreaks," said Roger Shephard, SCD board member, in an interview in the Colorado Rancher & Farmer. "Also, we hope the contest will stimulate more interest in district conservation programs."

One of the participants last year, Jerry Hahn, said he planted 450 trees and estimated that he spent 150 hours, or about 20 working days, during the summer alone tending to the windbreak.

"The windbreak did demand a lot of time during the busy season, but I think it was worth it," said Hahn, a cooperator with the district. "After 1 year's time—the critical period for newly planted trees—I had a 90 percent survival rate. This compares to about a 70 percent survival for trees that don't receive the same amount of care."

The entry letter summed up the board's approach:

"You can't lose by entering this contest, because even if you fail to place, you will still gain by the additional growth and vigor of your planting through adequate care given to your trees." ♦

Arboretum Project Blossoms into Award

A New Jersey conservation district has become the first district to receive the National Arbor Day Award.

The Ocean County Conservation District was recognized for its efforts to establish a county arboretum. The competition was sponsored by the Arbor Day Foundation, organized in 1972 to promote a better understanding of the importance of trees as a resource. The award was presented at ceremonies in Nebraska City, Nebraska, in May.

The district began making plans for the arboretum in response to many questions it received on the adaptability of trees, shrubs, and grasses to sandy and infertile soil conditions in the county, according to Frank Bartolf, chairman of the district.

"In addition to a demonstration area, the arboretum will help schoolchildren observe and study the growth of trees and shrubs in the pine barrens," Bartolf said.

The Ocean County Board of Freeholders has agreed to set aside 10 acres of land in the county air park for the arboretum.

The district developed the plan for plantings there. To date, more than 125 trees and shrubs have been planted. ♦

Turn the pages back to 1934 to the "new" publication The Land. Ewing Jones, its editor, tells of his days as a "rookie," looking at soil erosion around the country. The Land was published by the temporary U.S. Soil Erosion Service, predecessor of the Soil Conservation Service.

A Rookie Looks at Soil Erosion

I can remember soil erosion from my boyhood days in Oklahoma. We used to have pictures of it in our geography. Occasionally we would play out near the levee north of Pauls Valley, and romp up and down the gullies. "That's erosion," we would comment, and promptly forget it.

Nowadays, since I have become inured to the atmosphere of erosion control and inoculated with the entrancing fever which seems to grab one who makes a study of this engrossing problem, the same apathy towards erosion is even more noticeable in the lay mind. Sure, we have erosion, is the general consensus, and straightway, it is forgotten.

"What do you do?" I am asked.

"Soil Erosion Service," I always say with a show of pride, "working to control erosion over the country."

"Oh, yes," is the inevitable answer, "terracing."

Then I very carefully explain that it isn't just terracing, that our work

also includes stripcropping, revegetation, rededication, and the many ramifications in the coordinated program.

This hasn't happened two or three times—but at least a dozen. It is positively amazing to note the scarcity of knowledge about just what erosion is and what is being done about it over the country.

But I must admit I had the same idea until I was initiated. We started out in the Tennessee Valley. Gus Lentz took us down a steep ravine, about 20 feet deep, I guess it was, and half a mile long. That gully had been started on purpose! It was kept alive on purpose! The owner of the farm had driven his plowshare down the center of his field two or three times to start a gully so that he wouldn't have to put up a fence to separate his fields. He got his gully—and he is getting more every year, and apparently does not care.

Another good old Tennessee Valley pioneer followed the archaic but quite popular method of running his furrows up and down the hill, and letting the land lie fallow each winter.

"Here, man," we pointed out in a burst of outraged dignity, "don't you realize that during the winter every rain carries off a sizable layer of your top soil?"

His eyes gleamed. "Sure, that gives me fresh soil to till each year. See?" That's downright pathetic.

The hills down there are plenty steep, and many should have been left in timber. Why, Mr. Batten, a small town real estate man, and a dead ringer for Eugene Pallette, told us that pencil companies had bought up the old cedar rail fences down there, sometimes paying more for the fences than the farms themselves would bring!

Across to Oklahoma. Charlie Hollopeter took us out over the Stillwater area. I asked him why it was that the grass strips bordering the fields

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. . . three things stuck in his craw; the large areas destroyed by erosion and the utter desolation which can result therefrom, the ignorance of the majority on this major national problem, and with what small effort erosion can be avoided.

were 7 to 10 inches higher than the fields themselves.

"Come here," he beckoned, and led me out to the field. What looked like cultivable ground from the highway was really nothing but harsh red subsoil. Even sunflowers wouldn't grow on that. Sheet erosion had robbed the field of its entire topsoil—but the grass held the shoulders in their virgin profile.

We went on down to Texas, just in the wake of a 3-inch rain. In the rich black belt, on a half-acre experimental plot, Horace Geib showed us where tons and tons of fine top soil had been swept from a fallowed field by that one rain, while on an adjacent field, stripcropped with oats and cotton, the runoff was negligible; a third plot, covered with grass representing permanent pasture, showed no runoff! Yet the farmers in that vicinity protested to the state highway commission because it was using bermudagrass to hold the shoulders along the highways.

We talked to a farmer who had seen his neighbor's contour furrowed field hold his soil during that heavy rain, while his own field was badly rilled and gullied. Yes sir, he wanted to come into the project program now. Encouragement!

Westward we continued to the Navajo. Here were encountered two remarkable "before and after" scenes in real life. One was down in a sand swept region near Jeddito, in the Keams Canyon district. Sand dunes had almost covered a "hogan," or Navajo dwelling, and were gradually creeping farther. The Navajo grinned as we gaped at the impending danger. "Pretty soon hafta build 'em higher," he commented tersely. A mile farther, we ran into quite an enterprising man by the name of Wilma Roberts. A big gully was cutting through his land—he put a stop to that with cottonwoods and willows. Sand dunes were creeping toward his home. He promptly put up simple fences, and the dunes were halted.

Another vivid scene was where a fence divided an area. On one side was a fine stand of native grasses—on the other, erosion pavement: harsh, pebbly, interspersed with a few dead tufts of sagebrush. Overgrazing had taken its toll.

We had seen photographs of bench terraces with which the Incas in the Colca Valley of Peru had controlled erosion on steep hilly lands and still cultivated them. In California we found a few duplicates, in rich citrus orchards. Some of them have been in use for several years, others were just being built, and again it was encouraging to note that someone was realizing that immediate steps were necessary if the land was to survive.

The Palouse region in Washington and Idaho is a billowy land, quite resembling ocean waves. The practice of summer fallowing these fine wheat lands was taking its toll—but where the farmers kept their steepest slopes in native grasses, or alternated their wheat with clover or peas, all was quiet on the western front and on the eastern front too, and these were income-producing crops.

Although little has been said, much was noted over the country of the works, the varied, coordinated works, which were being applied to these problems. And as the rookie ended his initiation, three things stuck in his craw: the large areas destroyed by erosion and the utter desolation which can result therefrom, the ignorance of the majority on this major national problem, and with what small effort erosion can be avoided.

The rookie had his initiation—and it ended with the warm feeling that the days are on the wane when gully control means tossing a wornout auto body into the ditch. Uncle Sam has substituted a coordinated attack which has stuff on the ball. ♦

A=RKLSCP

National Soil Erosion Conference Honors Walter H. Wischmeier

On the plains of Hyderabad in India a man came up to the head of USDA's Agricultural Research Service (ARS) and asked him if he had the honor of knowing Walter H. Wischmeier.

That's one of the illustrations ARS Administrator Talcott W. Edminster used in honoring the leader of the team of scientists who developed the universal soil loss equation. Edminster spoke at the National Soil Erosion Conference at Purdue University May 24-26.

The conference focused on the prediction and control of soil erosion and honored Wischmeier on his retirement as a research statistician with ARS and professor at Purdue.

Papers presented during the conference covered uses of the universal soil loss equation, its application to other geographic areas, research to identify factor values in the equation, and its use in modeling analysis and erosion and sediment control.

"Perhaps no development has had a greater impact on the soil conservation effort than has the universal soil loss equation developed cooperatively by a team of scientists led by W. H. Wischmeier from the Agricultural Research Service and Purdue University," noted the conference program. "His assistance in helping the Soil Conservation Service and other agencies apply the equation is a model of effective technology transfer from researchers to users."

Wischmeier used several thousand plot-years of data in developing the six-factor prediction equation.

Both SCS and ARS have further contributed to the universal soil loss equation since 1940. The equation, designed for field use by soil conservation planners and technicians in predicting soil loss from sheet and rill erosion on cropland, was extended in 1972 to predict sheet erosion from various land uses in watersheds.

More than 160 people attended the conference sponsored by Purdue University in cooperation with the Agricultural Research Service, Soil Conservation Service, Soil Conservation Society of America, American Society of Agricultural Engineers, American Society of Agronomy, Soil Science Society of America, and the Crop Science Society of America. ♦

Your Soils' Potential

The soil survey supplement for Seminole County, Florida, can be a valuable tool for private land users as well as county officials.

Say, for instance, you own 5 acres in the county. The soil survey maps show that your land is primarily Blanton fine sand, high, 0 to 5 percent slopes.

The soil survey supplement will show that, if you want to build a house on that land, you're in luck. There are very few soil properties that will adversely affect a house of three stories or less, a septic tank absorption field, or the local roads and streets around you.

This soil slides easily, however, so sides of excavations for pipelines, underground phone and power transmission lines, sewer lines, and the basement will need to be shored up. Once this is done, you can expect good performance from the soil.

Blanton soil is not good for lawns and ornamentals. It has a very low content of organic matter and a low available water capacity. You will have to follow a good management plan, including such practices as fertilizing and irrigating, to obtain fair to good results.

As you may suspect, your hopes for a flourishing vegetable garden may well be dashed. This soil has a very low potential for cabbage, carrots, celery, cucumbers, lettuce, snap beans, and all the other vegetables grown in Seminole County. Even with good management, the soil is not likely to produce an adequate vegetable garden.

If you want to excavate a small fish pond where you had originally planned to put your vegetable garden, you're out of luck on that score, too. The soil is too sandy and too deep to ground water, and no practical practices are available to fill up an excavated pond.

If these 5 acres are part of your farm, the soil survey supplement can help you decide the most profitable crop to grow there.

The soil's low natural fertility and very low content of organic matter give it a low potential for improved pasture. You can try good management, but the results will be poor or unreliable.

You can expect fair to good results if you use these 5 acres for commercial wood production. Again, you will have to use good management, which may involve practices that have to be maintained or practices that are more difficult or costly than average, but the supplement shows that the average height of the dominant pine trees at age 50 (the site index) will be 80 feet.

Citrus is your best bet for farming this soil. Although it has a low available water capacity and is low in natural fertility, this soil has a high potential for citrus. If you practice good management, you can expect good results. ♦

Pilot Study Concentrates on Soil "Potentials"

by William Kercher and Fred Merrill

Much of the land in fast-growing Seminole County, Florida, has severe soil limitations for years of development.

Yet the population of Seminole County has increased at the rate of 7 percent a year during the last 25 years and is expected to double by 2000 by the turn of the century.

Where and how can growth be accommodated? That's a question that has challenged officials here and one that they've begun to answer.

An initial step was the publication last September of a supplemental soil survey in which soils are described in terms of their potentials as well as their limitations. County officials felt this would result in [illegible] adopted a plan will guide all future land use changes in the county.

The "soil potentials" approach recognizes not only the limitations of the soil but also

...problems and the ...g ...overcoming ...

...ere put into one ...ed for each of ...areas and scored ...with a high ...would be ...proper drainage ...high potential ...ing the limita- ...soil would ...severe be- ...water table, ...judge how ...react if the ...become.

...Conservation Service ...key role by pro- ...technical assistance. This ...reflects a contribution ...disciplines in ...SCS and the Florida ...Agricultural Experiment stations ...prepared the detailed soil ...survey of the county in 1966. However, this was primarily an agricultural document. It needed updating to include interpretations for many other land use decisions required by increasing urban population.

The Seminole County Soil and Water Conservation District (SWCD) assigned the project top priority, enabling the work to be completed quickly. Secretarial help was secured through an agreement between the county commission and the SWCD.

The Board of County Commissioners, which was receptive and enthusiastic about the project, provided $1,800 to print 1,000 copies of the supplement.

The county planning staff was designated as the responsible county agency and worked closely with the SCS technical staff. The role of the county was primarily to determine how soil potentials could be used most effectively in recognizing and resolving soil-related problems in Seminole County. The county land development administrator and the county engineer helped determine how to best use the results of the work.

The use of the "potential" approach to soil interpretations appears to be far reaching in Seminole County. Last January, sessions were held to introduce the concept to staff members in the planning, land development, tax, engineering, and building inspection departments. Each department is using these interpretations for day-to-day operations.

The county assessor is exploring the possibility of basing land appraisals on potential uses rather than existing uses. The county engineer plans to use the approach to plan roads for soils with limiting properties. The land development department is planning to use it as a tool for county subdivision regulations.

A workshop was held last April to explain the concept of soil potentials and the use of soil survey information to consultants, developers, and others in the Orlando area.

The East Central Florida Regional Planning Council is interested in expanding this information to the six counties in its region.

And Disney World is looking at this procedure for identifying soil potentials for future developments in Florida. ♦

Mr. Kercher is county planner, Seminole County, Florida.

Mr. Merrill is S... district conservationist in Orlando, Florida.

Dam of Plenty

by LaVerne S. Anderson

From the air, it looks like a green patchwork quilt. Each "patch" is a garden, planted by Bloomfield, Connecticut, residents, in the 250-acre floodwater storage basin park behind Tunxis Reservoir.

Tunxis Reservoir was built in 1962 as part of the North Branch of the Park River Watershed Protection Project north of Hartford. The dam is one of four floodwater retarding structures constructed with Soil Conservation Service technical planning and financial assistance under the P.L. 566 Watershed Protection and Flood Prevention Act.

Bloomfield residents signed a 50-year lease with the Connecticut Department of Environmental Protection to use the floodwater storage basin. The state restricted the use of the land to things that would enhance or be indigenous to the surrounding environment.

Part of the park is a 22-acre lake, stocked with largemouth bass. It has become a popular fishing site. Three hard-surface tennis courts were added to the flat area at the upper part of the lake. A sizable marsh inhabited by numerous forms of wildlife has attracted outdoor buffs who have developed wildlife trails through the marsh and adjacent wooded areas. Recently, the Bloomfield Parks and Recreation Department organized a summer day camp for children and added picnic shelters and an archery range for their use.

Most town planners would consider this multiple use of a floodwater storage area as adequate and be satisfied. But Bloomfield found still another use for the area: the do-it-yourself gardening project.

It was started by George Bruhns, a member of the Bloomfield Advisory Committee on the Environment (ACE). He and his wife Eleanore had seen a community gardening project in Mrs. Bruhns' native Germany while vacationing there. After returning home, Bruhns suggested a similar gardening project for the Tunxis Reservoir floodwater storage area park to his fellow committee members. They

At Bloomfield's popular community garden, Janet Hall ties up tomato plants in her garden plot while Ross Wathne loosens soil after a rain.

agreed with the idea and it was approved by Harold Barenz, director of the Parks and Recreation Department.

In 1974, the pilot garden transformed a grass and weed laden field into a half-acre of 50 fertilized and tilled 20-foot by 20-foot garden plots. These plots were assigned to interested families on a first-come basis.

The success of the first garden, combined with increased food prices and a "back-to-the-land" attitude, helped increase the number of 1975 gardeners to five times as many as participated in 1974.

Several loads of cow manure were donated to the project by the A. C. Peterson Farms, one of the many cooperators with the Hartford County Soil and Water Conservation District. Leaves from town properties were dumped at the site to help enrich the soil. The manure, leaves, castor pomace (for nitrogen), and 6 tons of granite dust (for potassium) were hauled and spread by town employees with town equipment. All this material helped correct soil deficiencies noted by the Connecticut Agricultural Station soils analysis.

Last fall, soil tests showed nitrogen to be the only deficient plant nutrient. This season an ample amount will be added to the fertilizer program to assure an adequate balance of all nutrients to stimulate a successful crop.

Last season, a volunteer plowed the land using his own equipment. A sawmill donated stakes and a Saturday morning volunteer working party, assisted by Town Surveyor Jesse Branch, divided the garden into ready-to-plant plots.

A group of 20 workers picked up debris, such as stakes and strings, from the plots.

Anxious to see the project continue, Bloomfield's Town Manager Clifford Vermilya suggested that the Community Garden Club project become a town-sponsored but financially independent club. Club officers were elected last July, bylaws were adopted, and assessments were set for the 1976 garden. Garden section leaders, overseers of 45 plots each, were chosen and a mail-in plot renewal system developed.

Parks director Harold Barenz described the project's success: "Hauling gardening tools across town didn't seem to discourage people. They kept coming even in the hottest weather. Most families grew enough fresh vegetables to keep their families supplied all summer. Others canned or froze vegetables for the first time. One ambitious boy even raised an extra supply of vegetables to sell so he could have extra spending money."

Jim Tomasek, the Community Garden Club's first elected director, is enthusiastic about the success of the project. He feels a bountiful harvest for many families is only one of the benefits for Bloomfield. New friendships, the gratification of people working with other people, and a greater appreciation of our natural resources may be even more important.♦

Mr. Anderson is SCS district conservationist in Warehouse Point, Connecticut. His story on the community garden appeared in The New York Times this spring.

Wyoming Ranchers Coordinate Conservation on Public and Private Lands

By Dann A. Fosher and R. Steve Scheldt

Two Wyoming ranchers could probably add a few more paragraphs to the dictionary definition of "cooperation."

They've worked with five federal and state agencies to develop a coordinated resource management plan —the first in south central Wyoming.

The plan covers 28,000 acres —including not only the land owned by Ken Carrico and his son Gene but the 900 acres they lease from the state and the 23,000 acres of federal lands for which they have a grazing permit.

The Carricos initiated the coordinated plan 2 years ago after they entered into a Great Plains Conservation Program (GPCP) contract with the Soil Conservation Service to apply conservation practices to their private land.

They knew that the contract, which obligated $25,000 in GPCP cost-share money, would be more beneficial if needed practices were also applied to the land they lease and graze under permit.

The Carricos' desire resulted in the coordinated resource management plan—a plan for an operating unit that includes private land intermingled with state leased land, and federal land grazed under permit.

Nearly 3,000 ranches in Wyoming contain land leased from the state or grazed under permit from the federal government. Seventy of these now have coordinated resource management plans.

The Carricos, as cooperators of the Little Snake River Conservation District, requested the plan through the district. Participating agencies met in the summer of 1974 and outlined policies, legalities, and planning constraints. These agencies are USDA's Forest Service and Soil Conservation Service, the U.S. Department of Interior's Bureau of Land Management, the Wyoming State Land Commission, and the Wyoming Game and Fish Department.

They then worked out a plan for the ranch to meet its many and varied challenges. These include:

—fencing which will not impede big game migrations

—brush management patterns which will yield more grass for livestock but not destroy elk calving grounds or preferred wildlife browse species, such as bitterbrush and serviceberry

—a grazing system to incorporate summer use on subalpine ranges, and spring-fall use on desert ranges

—water developments to improve livestock and wildlife distribution.

The Carricos decided to change from a sheep to a cattle operation to facilitate the scheduled six-pasture rotation grazing system. Several cross-fences will divide the ranch, which at one time consisted of one 28,000-acre pasture.

State and federal agencies agreed to furnish materials needed to install improvement practices planned on the leased land.

The resource data accumulated for the plan also provided information for the Environmental Analysis Report required for any improvement practices scheduled on federal land.

Each year, the Carricos and agency employees revise the plan to reflect changed resource conditions, livestock needs, and the operator's desires.

Today, many improvements can be seen on this ranch in the foothills of the Sierra Madre in the Rocky Mountains. Sagebrush is chemically controlled on 1,200 acres, proposed fenceline right-of-ways have been made, and surveys for pond and spring developments have been completed.

In addition, the Carricos and specialists from the various government agencies keep a close watch on the land to protect it from overgrazing. They've placed utilization cages in strategic locations and clip and measure the vegetation in the cages annually to monitor both grazing use and the rate of recovery of the rangeland. ♦

Mr. Fosher is SCS district conservationist in Baggs, Wyoming.

Mr. Scheldt was formerly SCS range conservationist in Kemmerer, Wyoming, and is now SCS biologist in Grand Junction, Colorado.

SCS and Forest Service technicians clip the vegetation in the utilization cages annually to monitor grazing use and the rate of recovery on the rangeland.

Assembly Line for Seedlings

by Boyd A. Ruth

It is an assembly line that would have pleased Henry Ford himself.

Eighty volunteers were handling 320 tree seedlings every 60 seconds, wrapping them into bundles of 40 seedlings each at a rate of two bundles every 15 seconds.

The occasion? "Tree packing day," which is sponsored each April by the Licking County Soil and Water Conservation District (SWCD) in Ohio.

"We've come a long way—from selling 11,000 trees in 1966 to nearly 130,000 this year," according to coordinator Gordon Postle, executive secretary of the Licking County SWCD.

The district sponsors the nonprofit event to supply seedlings for wildlife plantings in a 10-county area in central and eastern Ohio.

It takes advance orders, buys the seedlings from private nurseries, and makes up the wildlife planting packets.

The district offers two packets. One contains 45 evergreen seedlings of pine and spruce species. The other contains 40 shrub seedlings, including American holly, Russian olive, and Chinese chestnut. It's an international combination selected for its regional adaptability and usefulness to wildlife.

Volunteers select the various seedlings for a packet, wrap them in plastic, add moistened sawdust to protect the roots, and tie each packet with twine.

Volunteers during last April's tree packing day included suburbanites, Scouts, 4-H Club members, farmers, the Licking SWCD staff and board of supervisors, and Soil Conservation Service and Ohio Cooperative Extension Service employees.

They met south of Newark at Dawes Arboretum, which provided facilities. The Moundbuilders Kiwanis Club furnished coffee and doughnuts.

"It's the folks who volunteer to wrap the trees that help make the packet program successful," said coordinator Postle.

"These volunteers are providing a benefit to wild creatures and all mankind. This is what resource conservation is all about." ♦

Mr. Ruth is SCS district conservationist in Pomeroy, Ohio.

Lake Liberty

Don and Christy Anderson at the dedication of Lake Liberty.

In celebration of the Bicentennial, Oklahoma has named its 1776th small watershed reservoir Lake Liberty.

Near Ada, the lake was dedicated at ceremonies attended by more than 1,400 people last May.

Lake Liberty is formed by the 1776th floodwater retarding structure to be built in Oklahoma under Public Law 566, the small watershed program, and the Washita Flood Control Program, both administered by the Soil Conservation Service. The lake has 28 surface acres and has 3,000 acres in the drainage area above the dam site. The dam is the 27th to be completed out of 33 planned on the Sandy Creek Watershed.

Don and Christy Anderson, owners of the ranch on which the lake was built, are cooperators with the Pontotoc County Conservation District. They have worked with SCS biologist Gary Bullard to plan for wildlife habitat development around the lake. Anderson also plans to use the lake for irrigation. ♦

Meetings

July

10-14	American Association of Nurserymen, Inc., Boston, Mass.
11-15	American Society of Landscape Architects, San Diego, Calif.
14-17	Izaak Walton League, Baltimore, Md.
26-29	Sixth Annual Trade Fair & Fertilizer Conference, Cincinnati, Ohio
26-30	Symposium on Urban Flood Plain Management, Lexington, Ky.

August

1-4	National Association of Conservation Districts 1976 Northeast Regional Meeting, New Carrollton, Md.
1-4	Soil Conservation Society of America, Minneapolis, Minn.
10-12	Symposium on Inland Waterways for Navigation, Flood Control, and Water Diversions, Fort Collins, Colo.
15-18	American Agricultural Economics Association, University Park, Pa.
15-18	National Farm and Power Equipment Dealers Association, St. Louis, Mo.
15-19	National Association County Agricultural Agents, Richmond, Va.

September

8-10	Chesapeake Section, American Water Works Association, Ocean City, Md.
9-13	American Horticultural Society Congress, Philadelphia, Pa.
12-17	State Conservationists' Annual Meeting, Kansas City, Mo.
19-24	American Fisheries Society, Dearborn, Mich.
20-24	International Association of Game, Fish, and Conservation Commissioners, Dearborn, Mich.
26-30	Association of Conservation Engineers, Wrightsville Beach, N.C.
27-Oct 1	American Society of Civil Engineers Annual Convention, Philadelphia, Pa.
29-Oct 2	National Conference of Editorial Writers, Hilton Head, S.C.
30-Oct 5	Farm and Industrial Equipment Institute Annual Convention, Boca Raton, Fla.

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